

Title of Change:	C13C (MT9V*) CLCC assembly transfer from THEPI to Kingpak
Proposed First Ship date:	25 May 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Geethakrishnan.Narasimhan@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Additional Reliability Data:	Contact your local onsemi Sales Office or Amy.Wu@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Marking and Date Code
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer

Sites Affected:



onsemi Sites	External Foundry/Subcon Sites
None	Kingpak, Taiwan
	Tong Hsing Electronic Inc. (THEPI), Philippines

Description and Purpose:

THEPI has issued end of life for C13C (MT9V*) CLCC package assembly and test at its location. In order to prevent supply disruption, this product is being transferred and qualified in Kingpak, Taiwan. The final test, which was dual sourced at THEPI and KYEC (Taiwan), will now continue to be supported at KYEC. Below is the summary of proposed changes in manufacturing sites for C13C CLCC assembly and test. There is no change in final test program or test limits. The proposed changes have been qualified and verified to current data sheet specifications.

	Current	Proposed
C13C CLCC Assembly	THEPI	Kingpak, Taiwan
Gold Wire	Nippon T3 Au Wire 1.0mil	Tanaka Au Wire 0.8mil
C13C CLCC Final Test	THEPI and KYEC, Taiwan	KYEC, Taiwan

There is a product marking change as shown below.

	From	To
Product marking change	 <p>Ink Marking</p>	 <p>Laser Marking</p>



Final Product/Process Change Notification

Document #:FPCN24252X

Issue Date:18 Feb 2022

Reliability Data Summary:

The CLCC assembly transfers will be qualified based on the qualification plan shown below.

QV DEVICE NAME : MT9V034C12STM-DR

PACKAGE : CLCC

Test	Specification	Condition	Interval	Results
PC	J-STD-020	30°C/60%RH for 96hrs + 3X IR Reflow @ 260C	-	Pass
TC	JESD22-A104	-55°C - 125°C	1000 cycles	0/80
THS	JEITA ED4701-100	60°C/90% RH with no bias	1008 hrs	0/120
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/120
SD	J-STD-002	Solderability	-	0/15
PD	JESD22 B100,B108	Physical Dimension: Critical Cpk>1.67	-	0/30
WBS	AEC Q100-001 AEC Q003	Wire Bond Shear	-	Pass
WBP	MIL-STD883 Method 2011 AEC Q003	Wire Bond Pull	-	Pass
MST	J-STD-020	Moisture Sensitivity Test	-	Pass

Electrical Characteristics Summary:

There is no change in electrical characteristics.

MT9V034 Test data at Ta = room temp		Unit	Upper Spec	KinkPak			THEPI			CPU diff	Temp Condition of Specification
Supply	Mode			Sig	n	Cpu	Sig	Mean	Cpu		
Analog VAA	Default Settings, 752x480 60 FPS	mA	20	0.61	12.03	4.36	0.60	11.97	4.46	-0.11	Tj = -30C to 70C
Pixel VAAPIX	Default Settings, 752x480 60 FPS	mA	3	0.12	0.95	5.69	0.13	0.99	5.15	0.54	Tj = -30C to 70C
Digital VDD	Default Settings, 752x480 60 FPS	mA	60	1.30	47.70	3.15	0.76	46.93	5.73	-2.58	Tj = -30C to 70C
Analog VAA	STBY, CLK Off	uA	3	0.12	0.56	6.78	0.09	1.38	6.00	0.78	Tj = -30C to 70C
Digital VDD	STBY, CLK Off	uA	10	0.13	0.58	24.15	0.13	1.31	22.28	1.87	Tj = -30C to 70C

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
MT9V034C12STC-DR	MT9V034C12STM-DR
MT9V034C12STM-DP1	MT9V034C12STM-DR
MT9V034C12STM-DP	MT9V034C12STM-DR
MT9V034C12STM-DR1	MT9V034C12STM-DR
MT9V034C12STM-DR	MT9V034C12STM-DR
MT9V034C12STM-TP	MT9V034C12STM-DR
MT9V034C12STC-DP	MT9V034C12STM-DR
MT9V034C12STC-DP1	MT9V034C12STM-DR

Appendix A: Changed Products

PCN#: FPCN24252X
Issue Date: Feb 17, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
MT9V034C12STC-DR		MT9V034C12STM-DR	NA	
MT9V034C12STM-DP1		MT9V034C12STM-DR	NA	
MT9V034C12STC-DP1		MT9V034C12STM-DR	NA	
MT9V034C12STM-DR		MT9V034C12STM-DR	NA	